

## **WHAT WE CLAIM IS:**

1. A dental hygiene system handle well adapted for comfortable gripping, manipulating, and rotating about its longitudinal axis comprising:

a proximal grip section, a distal brush section, and a central control section located therebetween,

the central control section including four elastomeric lands for receiving the thumb and forefinger of a user on opposite sides of the central control section.

2. The dental hygiene system handle of claim 1 in which the handle includes a toothbrush head with bristles at its distal end.

3. The dental hygiene system handle of claim 2 in which the handle is unitary, the toothbrush head being integral with the rest of the handle and the bristles being mounted in the head.

4. The dental hygiene system handle of claim 2 in which the toothbrush head is removably mounted to the handle.

5. The dental hygiene system handle of claim 1 in which the proximal grip section is generally ellipsoidal in shape.

6. The dental hygiene system handle of claim 5 in which the ellipsoidally shaped proximal grip section is rounded at its proximal tip and bulges outwardly as the contour of the grip moves distally to its maximum radial divergence.

7. The dental hygiene system handle of claim 5 in which the central control section necks down and then diverges outwardly in a smooth curved contour to a pair of peaks near the distal end of the control section.

8. The dental hygiene system handle of claim 1 in which the lands meet each other at the outer surface of the central control section at angles from about 25° to 65°.
9. The dental hygiene system handle of claim 1 in which the lands meet each other at the outer surface of the central control section at an angle of about 45°.
10. The dental hygiene system handle of claim 1 in which the lands are of a generally inverted teardrop shape, with a larger rounded end of the teardrop oriented generally toward the distal end of the central control section and a smaller, narrower rounded end of the teardrop oriented generally toward the proximal end of the central control section.
11. The dental hygiene system handle of claim 1 in which the lands include a raised design.
12. The dental hygiene system handle of claim 1 in which the handle comprises a rigid base member that is selectively overmolded with elastomer.
13. The dental hygiene system handle of claim 12 in which the rigid base member is made from polypropylene.
14. The dental hygiene system handle of claim 12 in which the rigid base member includes an overmolding area extending from just distal to the end of the handle comprising a slot in the top of the base member that extends below the handle along its proximal and central control sections to form in a half-moon cut-away profile on the bottom of the rigid base member.
15. The dental hygiene system handle of claim 14 in which the half-moon cut-away profile is flanked by a pair of ledges.

16. The dental hygiene system handle of claim 14 in which the cut-away profile runs from the bottom of the handle into another slot that encircles in the neck of the distal brush section of the rigid base member.
17. The dental hygiene system handle of claim 12 in which a through-slot is formed in the control section and a blind slot is formed in the proximal section of the handle to help anchor the elastomer to the rigid base member.
18. The dental hygiene system handle of claim 12 in which the elastomer has a Shore A hardness of about 25.
19. The dental hygiene system handle of claim 1 including elastomer at the top of the handle in the proximal grip section extending to and running along the bottom of the handle, and elastomer in the central control section.
20. The dental hygiene system handle of claim 19 in which the remaining sections of the handle comprise exposed portions of the rigid base member.
21. The dental hygiene system of claim 1 including an attachment section with a D-shaped recess that opens into the distal end of the handle, a release lever, and a carrying member having an engagement portion that fits in the recess.
22. The dental hygiene system of claim 21 in which the carrying member includes a dental hygiene element.

23. A method of brushing the teeth by a user comprising:

providing a dental hygiene system handle including a proximal grip section, a central control section, and a distal brush section having brush bristles, with the central control section including four elastomeric lands for receiving the thumb and forefinger of the user on opposite sides of the central control section;

gripping the handle in the user's hand with the user's three lower fingers curled around and holding the ellipsoidal proximal grip section and the central control section held between the forefinger and the thumb;

moving the handle to position the brush bristles along the gum line in one quadrant of the mouth, at approximately a 45° angle, with at least one row of bristles nestled below the gum line, and gently moving the handle back and forth so that bristles in the user's gingival sulcus loosen and remove plaque present there while the rest of the bristles brush and massage the exposed surface of the gum and clean the exposed tooth surfaces; and

when it is desired to move to another quadrant, lifting the brush bristles away and rotating the brush handle 90° or 180° along its longitudinal axis to properly position the bristles at a new location at approximately a 45° angle, with at least one row of bristles nestled below the gum line at the new location.

24. The method of claim 23 in which raised designs are provided on the lands and the user's thumb and forefinger are positioned at the raised designs both visually and by way of the tactile feedback sensation that the user gets when the thumb and forefinger touch the raised designs.

25. A dental hygiene system handle including a rigid base member with four generally perpendicular elongated ribs and elastomer molded therebetween to provide a series of upstanding rigid portions separated by a series of elastomeric valleys.

26. The dental hygiene system of claim 25 in which the four generally perpendicular longitudinally elongated ribs are rounded at their edges, and rounded valleys are formed opposite the tips of the elongated ribs of the rigid base member with hills formed opposite the interstices between the elongated ribs.

27. The dental hygiene system of claim 26 in which the elastomeric material is formed in the interstices between the ribs of the base member with the edges of the base member exposed.